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ABSTRACT

The academic characteristics of freshmen entering the University of California, Berkeley (UCB), major problems in secondary education, and ways that the university can affect the quality of secondary education are examined. Data on entering freshmen for 1970-1980 indicate that UCB freshmen have consistently scored higher on admissions tests than the entry group of college-bound seniors in the state and in the nation. Admission test results show an overall decline in verbal scores and an increase in mathematics scores. UCB freshmen come from over 300 high schools, primarily public schools in California. Data on the top 20 feeder schools and brief descriptions of the top 3 feeder schools are presented. After reviewing the critical issues for secondary education and their historical, demographic, and social context, it is claimed the UCB's feeder schools are faced with: increasingly diverse student bodies; growing numbers of the limited English-speaking; teacher lay-off and low morale; high student-counselor ratios; and an overly-diversified curriculum. While there are differences among schools, a general need exists to raise the quality of college preparation, primarily in writing and mathematics. Activities by educators and state agencies directed at improving the status of high school education in California and the university's activities in the high schools are reviewed. In addition, ways in which campus administrators and faculty might have greater impact on the high school educational process are suggested. A student guide and sample test for a high school graduation proficiency test (from the Oakland Unified School District) are appended, along with an article on the state of public high schools and a bibliography. (SW)

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UNIVERSITY OF CALIFORNIA
BERKELEY

HIGH SCHOOLS TODAY: OVERVIEW AND IMPLICATIONS
FOR THE UNIVERSITY OF CALIFORNIA, BERKELEY

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SUMMARY

HIGH SCHOOLS TODAY: OVERVIEW AND IMPLICATIONS
FOR THE UNIVERSITY OF CALIFORNIA, BERKELEY

This report was prepared in response to a need for more information about incoming freshmen at the University of California, Berkeley (UCB). Its purpose is to inform faculty and staff on this campus about the high school experience of entering students.

The Office of Student Research conducted this study of high school education during the 1980-81 academic year through interviews with teachers, counselors and administrators, discussions with UC Berkeley faculty and staff, and a review of the current literature. This is a background paper, not an exhaustive analysis of the topic, and we hope it will provide a common basis for discussions among concerned individuals on campus and in the community.

The report is organized in three sections. The first describes the academic characteristics of UCB's entering freshmen and their high schools; the second is a summary of major problems in secondary education; and the final section suggests areas where the University can have an impact on the quality of secondary education.

Data on freshmen entering UCB is reported for the past ten years. Admissions test results show an overall decline in verbal scores and increase in mathematics scores. UCB freshmen have consistently scored higher than the entire group of college-bound seniors in the State and in the nation.

Our freshmen come from over 300 high schools, primarily public

schools in California. Bay Area schools provide the majority of entering students. Some data on the top twenty feeder schools and brief descriptions of the top three feeder schools are given in the first section of this paper.

The major part of the report is an overview of critical issues in secondary education and their historical, demographic and social contexts. Public schools today reflect the rapidly changing values and uncertain standards of our society. They are influenced by a myriad of special interest groups.

Our feeder schools are faced with: increasingly diverse student bodies; growing numbers of the limited English-speaking; teacher lay-offs and low morale; high student-counselor ratios; and an overly-diversified curriculum. There is a sense among educators that high school education has become a patchwork of programs without focus, and that the time has come for taking stock and attempting to improve the college preparatory curriculum. While there are differences among schools, a general need exists to raise the quality and level of college preparation, primarily in writing and mathematics.

High School graduates do not feel well prepared in study skills. They have spent more time on home television viewing than they have in the classroom. Graduates in this state do not take as many academic courses as students do nationwide and they achieve lower scores in college admissions tests than the nationwide group.

There is considerable concern and activity directed at improving the status of high school education in the State. The State Department of Education is considering ways to encourage schools to upgrade their curriculum standards. The California Roundtable for Educational Opportunity is discussing the development of a document outlining the academic preparation expected of college entrants. An intersegmental faculty group representing the University of California, the California State

Universities and Colleges, and the California Community Colleges are looking at ways to work more closely with high schools.

The final section summarizes the University's activities in the high schools and suggests ways in which Campus administration and faculty might have greater impact on the high school educational process.

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HIGH SCHOOLS TODAY: OVERVIEW AND IMPLICATIONS
FOR THE UNIVERSITY OF CALIFORNIA, BERKELEY

INTRODUCTION

The educational preparation of entering freshmen is a topic of current interest at the University of California, Berkeley. Undergraduate education, especially in the lower division, is receiving greater attention in part because the proportion of entering freshmen and sophomores has been growing. This demographic change is accompanied by a concomitant demand for pre-college level or "basic skills" courses, such as Subject A (English composition) or Math P (pre-calculus). The high costs of providing these courses in the University system were discussed in a recent University report on activities for "under-prepared" students. (1)

This paper on high schools has been prepared to inform Berkeley Campus faculty and administrators about the high school experience of students coming to Berkeley. It is an attempt to describe high school education, especially at the campus' top "feeder" schools. We hope this report will contribute to a better understanding of entering freshmen, the source schools, and the University's own impact on the educational process in those schools.

Berkeley's Long Range Academic Plan, 1980-85 expressed the Campus' commitment to high educational standards, an ethnically diverse student body, and closer relations with source schools. The creation of the Office for Undergraduate Affairs in Fall 1980

was a step toward implementing those goals. This paper is only one of several initiatives begun this year to bring together University of California, Berkeley, faculty and high school teachers and administrators around the issue of improving the educational experience of college-bound students.

A widespread interest in high school education is evident in the current flurry of activity at local, state and national levels. Many school districts are reviewing their college preparatory curriculum; the State Board of Education has held hearings on secondary school standards; the Carnegie Foundation for the Advancement of Teaching is conducting a nationwide inquiry into the quality of high school education. The California Roundtable on Educational Opportunity, a committee representing all of the State's educational levels and segments, is discussing ways to strengthen the secondary curriculum. It is timely, then, that the Berkeley Campus consider its role vis-a-vis the nature of secondary education in its source schools.

We believe that high schools themselves and their graduates are quite different from what they were twenty years ago; that the quality of public school education has declined in the last ten years; and that the University needs to provide leadership and help to effect changes in the high schools.

This report is an overview of high school education in its historical, demographic, and social contexts. It is not an exhausting analysis but a presentation of some facts and observations that can provide the basis for a discussion of some issues of importance to the University. The material in this paper was gathered in interviews with high school teachers, counselors, and administrators; discussions with UCB faculty and staff; and a review of current literature. The paper is organized in three main sections: the first describes the academic characteristics of freshmen on the Berkeley campus and their high schools; the second is a summary of

the problems that secondary education faces; and the final section suggests areas where the University has, or could have, an impact on the quality of secondary education.

The preparation of this report owes a great deal to many individuals. Staffs of the Vice Chancellor for Undergraduate Affairs and the Office of Student Research contributed to the development and production of the paper. Cecelia Ozaki and Deanna Chew of Student Research assisted with research and graphics; Austin Frank, Director, provided ideas and consultation. This collaboration, along with that of twenty-five professional educators who were interviewed for this study, is gratefully acknowledged. Finally, we thank the several reviewers of the draft report for their thoughtful analyses.

I. BERKELEY'S FRESHMEN AND THEIR HIGH SCHOOLS

Academic Preparation of Freshmen

In Fall 1980, 3272 freshmen were enrolled at Berkeley. They came from over 300 high schools, approximately 87% from public schools and 13% from private and parochial schools. The class' ethnic composition was 66% White, 21% Asian, 5% Black, 5% Hispanic, and 3% other.

The majority of these freshmen felt well prepared by their high schools, according to an August 1980 survey. (2) However, 41% felt less than well prepared in study habits, and 22% felt less than well prepared in reading and composition.

An earlier (1978) survey of new Berkeley students at the end of their first year also found that the students felt poorly prepared by their high schools in study habits and writing. (3)

How well prepared, then, for University-level work are the current entering freshmen at Berkeley? How do they compare with past students and with the total pool of college-bound seniors in California and in the nation?

Let us look first at SAT scores for Berkeley students. The popular understanding is that test scores have been declining at a growing rate. A local newspaper reports, "The verbal and math skills of freshmen entering the University of California are growing worse each year." (4) While this is generally true for the University as a whole, mean scores of Berkeley students have been, in fact, on the upswing since 1975; see Tables 1 and 2. In Table 3, SAT scores of prospective Berkeley applicants are seen to compare favorably also with all college-bound seniors in the State and in the nation.

Looking at trend data for Berkeley students, we see that verbal

TABLE 1A
UNIVERSITY OF CALIFORNIA
SAT-VERBAL MEAN SCORES, BY CAMPUS
1970-79

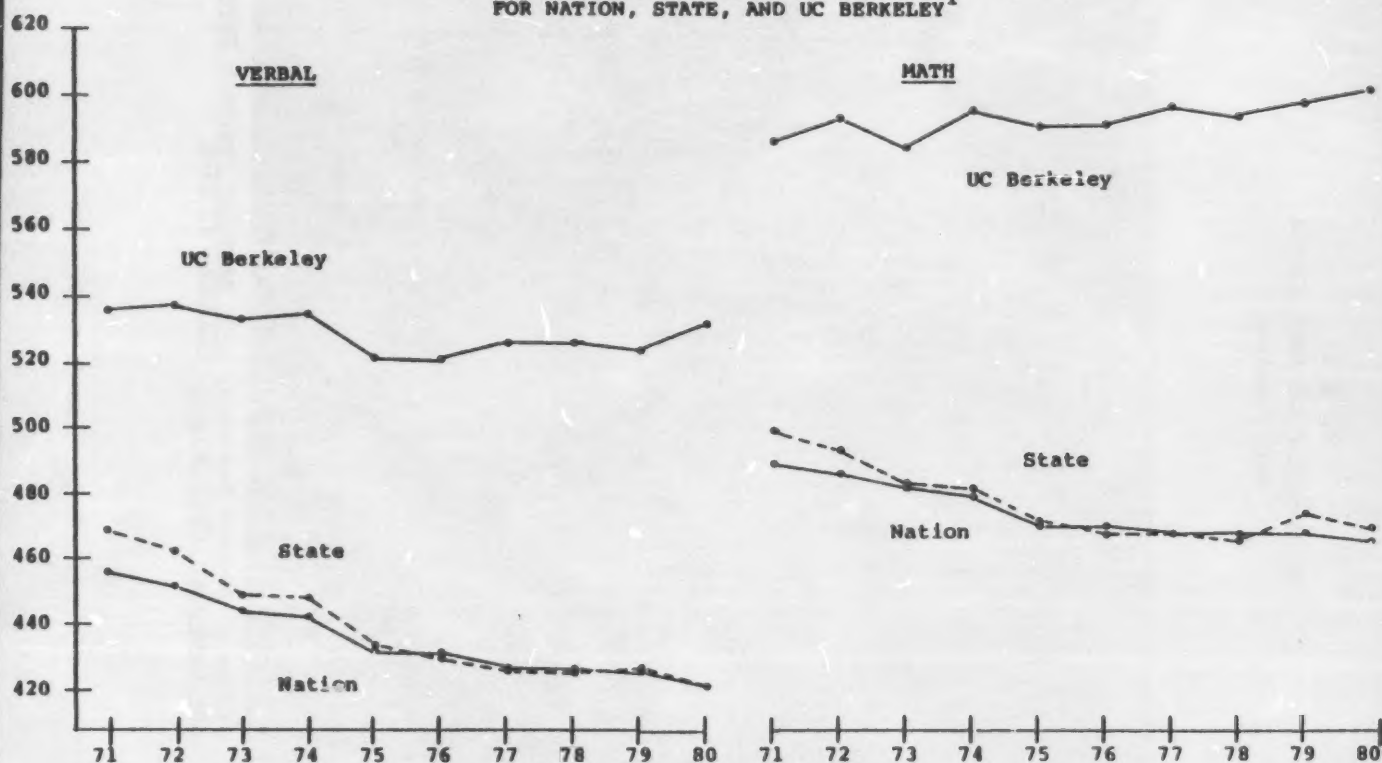
	Berkeley	Davis	Irvine	Los Angeles	Riverside	San Diego	Santa Barbara	Santa Cruz	Systemwide
1970	553	541	557	540	554	582	545	620	553
1971	535	530	535	525	537	545	548	605	544
1972	537	539	533	520	517	542	532	604	543
1973	535	533	520	516	520	539	514	576	533
1974	535	529	515	510	508	532	516	563	525
1975	520	517	501	496	505	519	503	538	510
1976	521	518	493	489	506	514	501	535	507
1977	525	512	479	492	483	508	498	535	504
1978	525	510	485	490	504	511	493	527	505
1979	524	506	477	486	499	510	486	522	500

TABLE 1B
UNIVERSITY OF CALIFORNIA
SAT-MATH MEAN SCORES, BY CAMPUS
1970-79

	Berkeley	Davis	Irvine	Los Angeles	Riverside	San Diego	Santa Barbara	Santa Cruz	Systemwide
1970	599	580	582	575	571	614	567	617	585
1971	586	581	575	569	563	588	573	609	583
1972	593	588	573	565	535	582	552	615	581
1973	587	584	561	562	546	579	542	584	575
1974	596	586	563	562	539	576	547	577	572
1975	592	578	556	555	545	568	542	550	564
1976	593	578	552	550	548	567	541	552	562
1977	599	576	548	552	544	570	539	550	564
1978	593	570	555	554	546	570	542	542	564
1979	599	565	548	555	544	568	539	550	563

Source: University of California, Frequency Distribution of College Board Examinations, 1968-79.

TABLE 2
SAT SCORES, 1971-80
MEAN VERBAL AND MATH SCORES
FOR NATION, STATE, AND UC BERKELEY¹



Sources: College Entrance Examination Board (CEEB), National: College-Bound Seniors, 1980, California: College-Bound Seniors, 1980, and Office of Student Research, 1980
Berkeley Freshman Scholastic Aptitude Test (SAT) Scores, December 5, 1980.

TABLE 3
UC BERKELEY SAT MEAN SCORES
Fall Freshmen

Year	<u>Men</u>				<u>Women</u>				Percent ¹ Tested
	N	Verbal	Math	Total	N	Verbal	Math	Total	
1970	1444	556	626	1182	854	549	554	1103	83
1971	1338	540	613	1153	858	527	543	1070	85
1972	1657	544	615	1159	1135	527	561	1088	92
1973	1679	544	619	1163	1204	521	535	1056	84
1974	1505	541	623	1164	1051	526	558	1084	90
1975	1536	526	617	1143	1081	511	556	1067	85
1976	1653	527	620	1147	1186	514	554	1068	90
1977	1688	529	627	1156	1211	519	561	1080	88
1978	1928	528	618	1146	1456	522	561	1083	91
1979	1901	528	626	1154	1479	519	564	1083	94
1980 ²	1602	540	628	1168	1196	521	567	1088	83

¹ Number of students for whom test scores are reported as a percentage of the number of new freshmen from high school that year.

² The mean scores and numbers tested, with the exception of 1980, are the official UC data from the Systemwide Office of Student Academic Services. The 1980 figures are preliminary data from UCB: Office of Admissions and Records' URIS tape (8th week).

Source: Office of Student Research, 1980 Berkeley Freshmen Scholastic Aptitude Test (SAT) Scores, December 5, 1980.

scores have been declining since 1970, but math scores have improved. The women's math score is the highest ever recorded for Berkeley, and the men's math score is the highest since 1968. Moreover, although UCB's mean scores have been increasing in the recent time period, this may be primarily due to a larger proportion of very high scores among the applicant pool.¹ At the same time, the proportion of low scores has remained high; the percentage of Berkeley entering freshmen with SAT verbal scores below 550 fluctuated between 46% and 60% in the 1970's. (1)

Another measure of the educational preparation of Berkeley freshmen is the proportion of each class that is required to take Subject A. Entering students must take this pre-college English course if they do not score at least 600 in the CEEB English Composition Test or fail to pass a campus-administered essay examination. Thirty year data (4) for Berkeley entrants shows only minor fluctuations in the proportion enrolled in Subject A: 36% in 1950, 45% in 1955, 30% in 1960, and 38% in 1980.² Thus there is no clear evidence here of a consistent decline in writing skills, as measured by the Subject A requirement.

How many "academic" courses do college-bound students take in high school? In California the University's minimum requirements often set the standard, and students in the State generally take fewer years of English, math, and science than do students across the nation. However, prospective applicants to this campus do a little better on the average than college-bound students as a group. For all college preparatory subjects, listed in Table 4, more Berkeley

¹ A possible explanation is that the increasing pool of applicants in recent years has permitted the Campus to admit a larger proportion of students with higher scores.

² The lowest recorded percentage enrolled in Subject A, 24%, occurred in 1970, which is not comparable to the other years because the minimum passing score on the CEEB test that year was dropped from 600 to 550.

TABLE 4
MEAN YEARS OF HIGH SCHOOL STUDY BY SUBJECT
COLLEGE-BOUND SENIORS, 1980

<u>Subject</u>	<u>National</u>	<u>California</u>	<u>UC Berkeley</u>
English	3.96	3.85	4.03
Mathematics	3.47	3.23	3.78
Foreign Language	2.17	2.24	2.72
Biological Science	1.40	1.33	1.37
Physical Science	1.77	1.32	1.91
Social Studies	3.20	3.21	3.29

- Sources: 1) CEEB, California: College-Bound Seniors, 1980.
2) CEEB, National: College-Bound Seniors, 1980.
3) CEEB, ATP Summary Reports, University of California, Berkeley,
Profile of Prospective Applicants for Admission, 1980. (This
is data on students who requested that their SAT scores be
sent to UC Berkeley.)

prospects, on the average, have had more years of study in each subject than the state and national averages. (The only exception is biological science.)

The fact that California students take fewer advanced courses than the nationwide group of college-bound students is a matter of considerable concern to college admissions officers. Both Stanford and UC Berkeley have written to high school counselors urging them to encourage university-bound students to take more college preparatory courses than the minimum required. (6, 7) UC-bound students are often reluctant to take advanced courses in mathematics or science for fear of lowering their overall GPA. Although only the best grades in the A - F subject areas are used in calculating GPA for University entrance, overall GPA is considered for redirection by the Berkeley Campus. Thus a student whose first choice is Berkeley might not take additional advanced courses in high school because of the risk of lowering his/her overall GPA and becoming a more likely candidate for redirection.

The Source Schools

Berkeley freshmen include graduates from public and private high schools, California and out-of-state high schools, and foreign countries. The overwhelming majority come from California's public schools, so this discussion will focus on those schools, particularly the major "feeder" schools.

Berkeley's "service area" consists of the Bay Area and the coastal region as far as the Oregon border. Approximately 65% of its students come from schools within this region, 25% from other parts of the State, and 10% from out-of-state and foreign schools.

A large number of schools supply only one or two students per year to this campus, and only a handful provides as many as 50 students per year. In 1980 the top 20 feeder schools accounted for 792 fresh-

men, 24% of the entering class at Berkeley. For several years Lowell, Berkeley, and Skyline have been consistently the top three.

Table 5 lists the 20 top source schools in rank order (by the number of UCB entrants in 1980) with some descriptive data, including the latest available GPA differential for each school.¹ The list includes schools that are urban and suburban, ethnically diverse, public and private, large and small, academic-only and comprehensive. These institutions, by and large, have strong academic programs. However, many of these schools are also suffering from the general malaise in public education, stemming from a plethora of financial and social problems.

The three top feeders, Lowell High School in San Francisco, Berkeley High School, and Skyline High School in Oakland, are described briefly here as an introduction to a discussion of the general status of high school education today. These three schools were selected for a closer look because they are the top three feeders. They are not cited as models but simply as examples of local academic and/or comprehensive high schools. All are good college preparatory schools that are struggling to maintain high standards in the face of severe fiscal problems.

Lowell High School is a citywide, nondistricted college-preparatory high school in San Francisco and the only public school of this type in California. The school receives twice as many applications as it can accept. An Admissions Committee including community representatives selects students with a minimum GPA of 3.0 in seventh and eighth grade coursework, and considers other factors such as applicants' CTBS² scores

¹ For a definition of GPA differential, see Table 5, footnote 2. This figure is reported to source schools as an indication of their students' achievement at the University, but it is only meaningful in the context of the mean GPA figures, the students' majors, etc.

² Comprehensive Test of Basic Skills (CTBS) is used by most school districts to measure performance of students at various grade levels.

Office of Student Research
March 1981

TABLE 5
GPA DIFFERENTIAL FOR TOP FEEDER SCHOOLS
UNIVERSITY OF CALIFORNIA, BERKELEY
FALL 1980

School/Location	High School ₁ Enrollment	Fall '80 Entrants	GPA Differential ₂
1. Lowell (San Francisco)	2589	103	-.517
2. Berkeley	2549	78	-.579
3. Skyline (Oakland)	1930	65	-.862
4. Oakland	1936	55	-.861
5. El Cerrito	2068	48	-.633
6. Miramonte (Orinda)	1721	47	-.640
7. Palisades (Pacific Palisades)	2461	37	-.502
8. St. Ignatius (San Francisco)	1208	32	-.921
9. Redwood (Larkspur)	2441	32	(N.A.)
10. Northgate (Walnut Creek)	1929	32	-.879
11. J.F. Kennedy (Richmond)	1546	31	-.752
12. Palo Alto	1550	30	-.797
13. Piedmont	827	29	-.666
14. Washington (San Francisco)	2429	28	-.806
15. Campolindo (Moraga)	1303	26	-.635
16. Acalanes (Lafayette)	1417	26	-.750
17. La Jolla (San Diego)	1549	25	-.715
18. San Mateo	1914	23	-.634
19. University (Los Angeles)	2855	23	-.431
20. Harvard (North Hollywood)	748	22	-.614

¹ Sources: State Department of Education, High School Data File, 1977; California Private Secondary School Directory, 1979; Oakland Public Schools, Report on School and District Racial-Ethnic Composition of Students, 1979.

² U.C., Summary of First Year Performance for Students Entering Fall Quarter, 1978-79. GPA differential is the difference between high school GPA and GPA at end of first year at UC Berkeley. It is computed only for entering students who completed all "A-to-F" requirements at the source school. The mean differential for all high schools in the State is -.687. (GPA differential for Redwood High School is not available at this time; a figure reported earlier was in error.)

and the school's desire for an ethnically diverse student body.

Lowell's student body of 2,600 is 53% Asian, 21% White, 9% Filipino, 6% Black, 6% Hispanic, and 5% other. The ethnic distribution of San Francisco's total public school enrollment is 31% Asian, 18% White, 9% Filipino, 25% Black, and 16% Hispanic. The City's total population, which is declining, has changed over the past decade from 71% White to 58% White, and the number of Asians has doubled.

Lowell is the oldest high school in San Francisco and has a long tradition of academic excellence. The year 1981 marks its 125th anniversary. The student handbook proudly alludes to Lowell's famous alumni, including two governors, a score of well-known writers, and two Nobel laureates. Over 200 private and public colleges and universities across the nation recruit at the school each year. Lowell has consistently been the first ranking feeder school for UC Berkeley; the mean number of entrants per year from 1976-80 was 156. In Fall 1980, 103 new Lowell graduates enrolled on this campus.

Fourteen percent of Lowell's students, 518 juniors and seniors, are in the Advanced Placement (AP) program, which offers college-level courses taught by specially-trained high school teachers. The school ranks first in the nation among schools of its size in the number passing AP examinations, which qualify high school graduates to skip over certain entry-level college courses. However, the school is concerned that its AP curriculum is in jeopardy because the Board of Education has proposed that teacher preparation time for AP courses be eliminated. This is already in effect at other San Francisco high schools; Lowell was an exception, until now, because of its large AP enrollment. If preparation time is eliminated, the school will be forced to cut back on the variety of advanced courses now offered.

Ninety-seven percent of Lowell's 1979 graduates entered college; among them were 14 National Merit finalists, 30 National Merit commendees, and 3 National Achievement commendees. Approximately twenty-five percent of

each senior class enters the University of California.

The school is located in the southwestern section of the city near San Francisco State University. Upon entering the school grounds, one senses an orderliness and purposefulness among the students. This is a marked contrast to a prison-like ambience in some urban schools with locked grounds and security guards at the gates. The scene in Lowell's hallways is striking: students sit on the floor reading or talking quietly in small groups. There is not the sense of chaos that prevails in many urban schools. Counselors describe the students as "self-disciplined" and the teachers as among the City's "best." The school buildings and grounds are, however, crowded and poorly maintained because of inadequate resources. There is not sufficient study space for students, thus the use of hallways.

Lowell offers a rich selection of courses. With only a college-preparatory curriculum, the school is able to provide a diversity of courses greater than most public schools. The math curriculum includes several advanced courses, including matrix algebra/logic and calculus. Sixteen English honors courses are available to students beginning in the 10th grade, including, for example, "Comparative Themes in Literature," "Man in His Universe," and "Shakespeare and Shaw."

Lowell has not, however, escaped from the general fiscal constraints on schools since the passage of Proposition 13 in 1978. Some advanced courses and some art and music classes have been dropped; there is less money for classroom supplies and equipment; school maintenance is deferred. Formerly, students could opt to take seven classes per day; now six are maximum.

The counseling staff of eight was cut to five in 1980, leaving a student-counselor ratio of 600 to 1. Even so, the counseling office takes time to prepare each year a very useful handout for seniors. This is a college information sheet describing admissions requirements of the three public postsecondary segments in California, information and dead-

lines for admissions tests, applications and financial aid, and suggestions about private college admissions.

Although Lowell has a high percentage of students from bilingual homes, it does not provide bilingual classes, as admission to the school requires English fluency. Still, some of its students are immigrants and could profit from tutoring and peer counseling. A San Francisco School District program of peer counseling in the junior high schools was "promising" but has been eliminated in budget cuts, according to staff. Moreover, Lowell receives only a small proportion of federal funds as most of it goes to schools in low-income neighborhoods.

Lowell is unique in the Bay Area and in the State. Its existence as a college-preparatory high school is controversial. Ten years ago a lawsuit challenged the continuation of Lowell as a citywide academic high school, alleging that its admissions standards discriminated against females (who were then required to have higher minimum GPA's than males) and against minorities, then underrepresented in the student body. Charges of "elitism" were countered by survey findings that the school's population included a representative proportion of working-class families. The court found no "unconstitutional discrimination" at Lowell, but required the formation of a community-based admissions committee and the elimination of differential GPA's for males and females.

One wonders whether more academic schools like Lowell may be an answer to improved preparation for college-bound students. There are current proposals for a return to the university demonstration schools of the past. Some cities are developing "magnet" schools, i.e., non-district schools emphasizing academic subjects or the performing arts. However, because comprehensive high schools are the norm, it would be both controversial and costly to move in that direction at this time. Also, an academic school like Lowell can be detrimental to a school district in that it attracts the best students in the city and thus leaves the other high schools with fewer good students.

Nonetheless, the San Francisco School District has just approved

the establishment of another "academic" or "traditional" high school that would have as its primary mission preparing students in the "basic subjects" of art, English, foreign language, history, math, and science. The model for this traditional school is Marshall High School in Pasadena, California, which includes among its requirements four years of English and two years of math, "strict discipline" and "character building" exercises. (8)

Berkeley High School is the second-ranked of UCB's feeder high schools. Located in an academic community, the school has generally had a substantial proportion of college preparatory and high-achieving students.

Berkeley High's student body of 2,600 is 48% White, 42% Black, 7% Asian, 3% Hispanic, and 1% other. The school's students score significantly higher than the average on State and national achievement and college admissions tests. Two-thirds of the graduating class take the SAT, and their mean scores are consistently higher than the national average. Mean scores of 1979 graduates were 470 verbal and 512 math, compared with national averages of 424 verbal and 466 math. In Fall 1980, 26 Berkeley High seniors were National Merit finalists, among the top 5% in the nation. (9)

An average of 91 Berkeley High graduates per year have enrolled at UCB over the past five years. Seventy-eight entered in Fall 1980.

Berkeley High ranks first in the number of its students concurrently enrolled at the University. Concurrent enrollment allows eleventh and twelfth grade students to take one college course each semester. Twenty-five to thirty Berkeley High students take a course on this campus each semester.

Berkeley's public schools, like other urban school districts, have experienced a series of disruptive events over the past two decades. First, controversies over integration and bussing, then declining enrollments, a long teachers' strike, major facilities reconstruction and

escalating fiscal problems resulting from State and federal cutbacks, an unexpected major budget deficit and, finally, Proposition 13.

The fiscal problems are evidenced in inadequate budgets for school supplies and equipment, facilities maintenance, and special arts and athletic activities. A 2/3 cut is expected in the arts budget for 1981-82; only a small portion of the faculty's requests for "critical" equipment will be provided. A former science teacher reports having to "scrounge" for enough textbooks and lab equipment for her classes. Tight budgets plus an increasing loss of equipment through theft account for the shortage of supplies and equipment.

Berkeley High's most serious problem appears to be an absence of consistent standards and low teacher morale, common in most urban schools. Littered grounds and graffiti-covered walls greet the visitor to the Berkeley High campus. It is a crowded facility with, not unexpectedly, high student absenteeism.

The school's new principal believes that teacher morale and educational standards at Berkeley High are seriously low; that an absence of institutional standards and personal accountability by teachers and students has led to a lower quality of education. Students' grades do not always reflect their high absenteeism and/or poor quality work. Inconsistent discipline is administered. Parental pressures sometimes outweigh sound educational decisions. Even academic courses, such as Algebra, have been diluted by offering an Algebra A and B series, not equivalent to standard college-preparatory Algebra.

Teacher morale itself is affected by the absence of institutional standards. Teachers are caught between the pressures of parents and the School Board; they are teaching a more diverse group of students; they receive relatively lower salaries and public esteem than a decade ago; their energies are dissipated in coping with classroom discipline.

Because it is a comprehensive high school, the school's resources

are spread thin over an extensive curriculum. The new State-mandated high school proficiency examinations, which seniors must pass in order to receive diplomas, have diverted time, energy, and money from other needed curriculum improvements.

Berkeley High School, then, is a school with problems typical of public schools generally: discipline and vandalism; a diverse population; conflicts among teachers, administrators, School Board and community; decreased funding and higher expenses. Its ability to provide high-quality preparation for college-bound students is threatened and requires some external support.

Skyline High School is the "Lowell" of the Oakland Unified School District. Although it is a comprehensive school, 75% to 80% of its graduates go directly on to college. The majority of its students come from the surrounding high-income residential area; approximately 20% of its enrollment is made up of students from other parts of Oakland. Students from other Oakland districts may apply simply because of a desire to attend Skyline or because it offers academic courses or a vocational program not available in other Oakland high schools.

Skyline has a beautiful, hilltop, bay view setting, and it resembles a college campus. Its enrollment of 1,930 has been fairly stable over the past five years. The student body is 45% White, 40% Black, 9% Asian, and 6% Hispanic.

Seventy-one Skyline graduates entered as UCB freshmen in Fall 1980. The school has supplied an average of 81 freshmen per year over the past five years. In 1980-81 the school had nine National Merit semi-finalists and 19 commendees; 2 National Achievement semi-finalists and 8 commendees.

The math and science departments at Skyline are strong. A recently retired chemistry teacher was nationally known. Among Skyline students taking the SAT in Spring 1980, twelve had perfect scores of 800 in the math achievement test, and 19 scored in the upper 700's.

In Fall 1980, thirty Skyline students (who had already completed four years of high school math) took college-level math classes at Merritt College or UC Berkeley. On the other hand, more students than formerly now enter Skyline (a senior high school) without having had algebra in the ninth grade.

Skyline staff report that, while the school's population is becoming increasingly heterogeneous, the majority aspire to postsecondary education. About 40% of the graduates enter four-year institutions and another 40% go to community colleges. However, the proportion of low-achieving students in the school has been growing. More school resources than formerly are assigned to "remedial" courses in order to prepare students to pass the proficiency examinations. However, Skyline's new principal has been reviewing the curriculum and plans to add some advanced placement courses.

This school appears to have suffered little from the general fiscal constraints. Counseling time has been decreased some by the assignment of noon supervision and other administrative duties. Some administrative positions were cut.

The general atmosphere among Skyline staff is positive and forward-looking. There is a strong parent group that supports the school and provides enrichment activities. Staff believe that student attitudes are becoming more positive; in contrast to the mid-70's, students are more identified with the school and participate more in school activities; they are more serious about their education, take more units in academic courses, and work harder.

II. THE CURRENT STATUS OF SECONDARY EDUCATION

A Brief Historical Perspective

Are today's high school graduates less well-educated than those in the past? Is the pool of college-bound seniors comparable over time? In what ways are high schools today different from those of twenty or thirty years ago? How can we evaluate statements such as the following:

There is growing evidence of a serious deterioration of quality in California public high schools, and officials in both the state's huge public higher education system and those at private institutions say the situation is more serious than they had realized. (10)

By this late date it must be obvious to everyone engaged in teaching that a strong groundswell is running against us. Entire issues of popular magazines have been devoted to critical examination of public education, each year more books are published which attack current educational practices, and in meetings of boards of education more and more voices are being raised demanding changes in the schools. (11)

A university professor says the University of California spends \$100,000 a year teaching incoming students the simple elementary things they must know to carry on their work, the things everybody should know, in college or out. (12)

The first passage is from a 1981 newspaper article; the second from a 1952 Harper's Magazine article; and the third from a 1931 Oakland newspaper editorial. Has nothing—or everything—changed?

Public high schools in the United States were established in 1821 as academic institutions. Vocational high schools were added in 1880. Today, secondary schools generally have a basic curriculum for all students plus optional vocational or college-preparatory courses. Specialized schools are the exception. Lowell High School, as noted earlier, is a rare example of a public school that offers solely the college-preparatory curriculum. San Francisco also has one high school, John O'Connell, that has vocational programs only.

Only the academic and social elite completed four years of high school in the early part of this century. The majority of high school entrants left school after the first or second year in order to take jobs. Even in 1950, less than 60% of high school freshmen stayed to graduation. (13) Today, the graduation rate in California is 74%, which is, however, lower than the 81% rate in the 1960's. (14)

Demographic Trends

The ethnic composition of the State's population has changed over the past decade. Preliminary 1980 census data show an increase of more than one-half in the proportion of Hispanics, now 19%, and an increase of almost one-third in the proportion of Blacks, now 8%. The Asian population, now 5%, has more than doubled. (15)

Because of declining birth rates, school enrollment projections for the mid-1980's are that the number of high school graduates in California will decrease by 15-20% over the mid-70's. (16) The White percentage is expected to decrease from 68% to 56%; the Hispanic to increase from 17% to 25%; and the Asian from 4% to 8%.

Waves of refugees, immigrants, and foreign students entering the State are straining school resources to provide English language and bilingual classes. Over 325,000 school children in California are from homes where English is not the primary language. Table 6 is a list of the number of non-English- and limited-English-speaking students by language group.

Ten percent of the students in Oakland high schools are in bilingual classes. Oakland Technical High School's department of ESL (English as a second language) is the largest department in that school. San Francisco School District has designated three elementary schools and one high school solely for newly-arrived immigrants. Newcomers High School's 600 students speak fourteen different languages.

TABLE 6

NON-ENGLISH-SPEAKING AND LIMITED-ENGLISH-SPEAKING STUDENTS
IN CALIFORNIA PUBLIC SCHOOLS BY LANGUAGE AND GRADE LEVEL

<u>Languages</u>	<u>Number</u>	<u>% of Total</u>
Spanish	257,033	78.9
Vietnamese	14,018	4.3
Cantonese	10,174	3.1
Korean	6,599	2.0
Pilipino/Tagalog	6,658	2.0
Portuguese	2,230	0.7
Mandarin	2,298	0.7
Japanese	2,713	0.8
Cambodian	1,071	0.3
Lao	2,652	0.8
All Others	20,302	6.2
Totals	325,748	100.0

<u>Grades</u>	<u>Number</u>	<u>% of Total</u>
K	53,318	16.4
1	47,375	14.5
2	33,530	10.3
3	28,172	8.6
4	26,497	8.1
5	21,898	6.7
6	18,809	5.8
7	18,426	5.7
8	18,033	5.5
9	20,386	6.3
10	18,276	5.6
11	11,842	3.6
12	6,328	1.9
Ungraded	2,858	0.9
Totals	325,748	100.0

Source: California State Department of Education, Office of Bilingual,
Bicultural Education, Report #80-2.

Although federal funds are allocated for refugee assistance and bilingual classes, an additional burden is placed on counseling staffs, already diminished by budget cuts in the last three years. Counselors at Woodrow Wilson High School (San Francisco) reported in March 1981 that one-third of their student body had entered after the second month of the school year, and that much of their time is spent in arranging class schedules for new students and giving special assistance to those with limited English.

Social Changes and the Schools

Public schools, of course, reflect the critical problems in society over time. When the Russians launched Sputnik, schools were accused of inadequate science education. When Blacks began to demand equal opportunities, the schools became the focal point for desegregation efforts. The country's malaise over the Vietnam War and the changing values in the 1960's were spearheaded by college and high school youth who were then a larger proportion of the population than ever before. Television has contributed to the development of a predominance of spectators over active participants in the educational process. The current national preoccupation with economic issues is reflected in students' concern with high-paying careers such as business administration and law, whereas in the 1960's more students were concerned with the social sciences. The rapidly changing family and social patterns of recent decades also affect the schools.

Family Patterns. The effects of changing values and family patterns on education are obvious but not well understood. One trend, an increase in the number of one-parent families, has only recently come under investigation in the schools.

The proportion of one-parent families increased from 11% to 19% in the period 1970-79. One-parent families account for one-half of all Black families. The Census Bureau estimates that, if the present trend continues, one-parent families will constitute almost one-half of all

families in the next generation. (17)

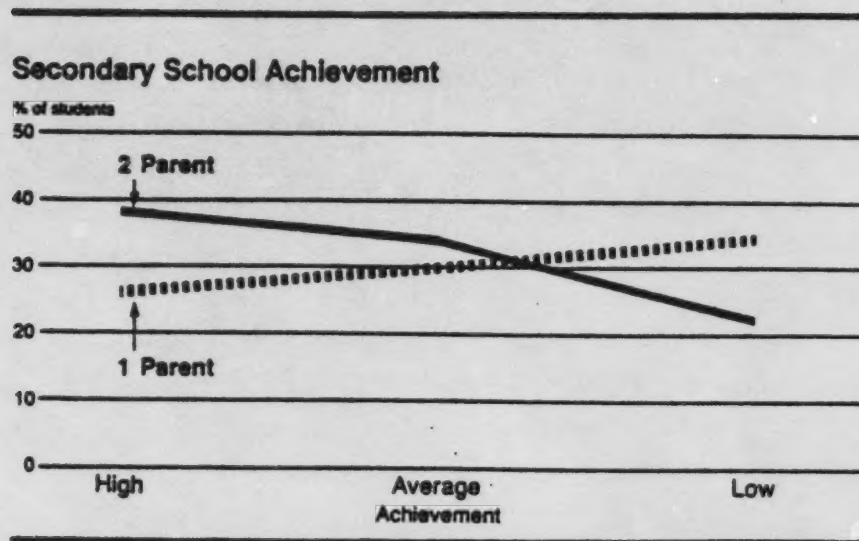
Preliminary findings of a three-year longitudinal study of children from one-parent and two-parent homes are that one-parent children, as a group, are lower-achieving and present more discipline problems than do the two-parent children. (17) They are also absent and tardy more often. Other contributing factors associated with the one-parent family are low income and high mobility. Fifty percent of the one-parent elementary school students come from low-income families. The secondary students from one-parent families are three times more likely to move out of the school's attendance area during their high school years than their classmates in two-parent homes.

Table 7 compares the secondary school achievement of one-parent and two-parent students on a scale of high-average-low. There are noticeable differences at the high and low ends; thirty-eight percent of the two-parent group are high achieving and only twenty-six percent of the one parent group.

Mobility alone, with its attendant disruption of family and neighborhood ties, may be an equally important factor in poor school adjustment. Oakland schools report that, in a recent school year, there were 1,271 transfers in and out of their nine high schools (with a total enrollment of 11,661). The mobility rate in elementary schools is even higher. (45)

Crime rate. Much media attention is devoted to the topic of crime, especially violent acts, and the general impression is that violence is on the increase in our society and in the schools. The crime rate among youth is especially high. Drugs and alcohol are readily available even in middle-class schools. Certainly there is evidence of increased criminal incidents and vandalism in inner-city schools. Los Angeles schools reported an increase in criminal incidents of 20% over a three-year period in the mid-70's. The cost of school vandalism in the State is estimated at over \$10 million annually. (18)

TABLE 7
COMPARATIVE ACHIEVEMENT OF SECONDARY STUDENTS
FROM ONE-PARENT VS. TWO-PARENT FAMILIES



Source: National Association of Elementary School Principals,
"One-Parent Families and Their Children," 1980.

Berkeley High School lost over \$30,000 in equipment through theft in 1979-80.

Some schools have locked campuses, with entry only through a gate monitored by a security guard. These schools are usually located in depressed neighborhoods where violence has been instigated by non-students.

Large urban schools report a high level of assaults on teachers. A nationwide survey of public school teachers in May 1980 found that a total of 113,000 teachers had been physically attacked in the previous year. Generally, however, staff in schools with a majority of college-bound students do not mention violence as a significant problem for them.

Both teachers and classroom observers report a high level of student lack of self-discipline and defiance of authority. Gallup polls have consistently found that parents consider discipline problems to be the most serious issue in the schools. (20)

Television. This major leisure-time activity of the American society and its effects on learning, especially reading skills, is not clearly understood. Surveys show, expectedly, a close and consistent association between higher-than-average television-viewing and lower-than-average achievement, and between more time spent on television and less time spent on homework.

Although it is difficult to sort out the relative beneficial and detrimental effects of home television, it is clear that this medium has had a tremendous impact on recent generations. By age 16, most youngsters have spent more hours watching home television than they have spent in the classroom. (18) This experience may dilute what was, in pretelevision days, a greater concentration on school learning and general reading. Television may also make the classroom experience seem less interesting, by contrast. Some experienced teachers report that youngsters

today expect "instant" information, want to be entertained, and are less creative and more passive in learning. (18)

School Governance and Finance

Public schools have always been subject to the community political process. Local control is jealously guarded, but has been seriously eroded in the past thirty years through mandated federal and State programs. While these programs frequently bring badly-needed supplemental funds, they have also diverted staff time and energies to "special" groups of students and to administrative duties. Thus, the "average" student may not receive a fair share of the educational process when attention is focused on the low-achieving, the gifted, the disabled, the bilingual, etc.

This multiple method of financing destroys any rational planning process. New legislative requirements bombard the public schools almost annually. In recent years, secondary schools have been required to implement proficiency tests as a requirement for graduation, bilingual classes, parent/citizen participation in school site councils, staff development and collective bargaining.

Although school finances were in trouble even before 1978, due to defeat of school bonds and earlier State cutbacks, the passage of Proposition 13 seriously undermined the schools' financial stability. When local property tax revenues were no longer able to support school budgets, the State stepped in to provide "bail-out" funds. However, many schools were forced to cut back drastically. They eliminated summer sessions and other special programs, laid off professional and paraprofessional staff, and decreased equipment and maintenance budgets.

The problems of school administrators and school boards have multiplied in recent decades. High school principals must cope daily with student discipline, federal project management, school site councils,

and shrinking budgets. School administrators spend most of their time on management to the neglect of their role as educational leaders. Because most administrators are not prepared for leadership, the UCB School of Education is considering the expansion of its training in educational administration from a one- to a two-year program.

One of the most detrimental effects of the schools' uncertain funding has been its impact on teacher employment. State law requires that teachers receive notice by March 15 of their employment status for the next year. As school districts no longer have reserves they can count on, administrators send lay-off notices to many teachers each spring. Then, later, when the State allocates funds to the school districts, some of those teachers are rehired. This uncertainty of employment has caused serious morale problems and even teacher strikes.

In San Francisco, for example, 50% of the public school teachers received lay-off notices in March, 1979. Only 15% were, in fact, eventually laid off. The confusion and disheartenment among the professional staff contributed to the calling of a strike at the beginning of the Fall 1979 term over how many teachers the district could afford to rehire. When the schools finally opened six weeks late, in October 1979, teacher morale--and the community's--was seriously damaged. Some parents enrolled their children in private schools. Some teachers sought other employment.

(21)

The effects of shrinking finances in another school district are vividly reported in an article on San Jose High School, "The Slow Death of a Public High School." (22) Some of the results of the shrinking budget were these:

- 1) decrease in school day from six to five periods;
- 2) lay-off of 14 teachers (23% of total) representing 44 class sections;
- 3) dismissal of 20 paraprofessionals;
- 4) 50% cut in counseling time;
- 5) reduction of attendance clerk position from full-time to

- part-time;
- 6) dropping of band and half of athletics program;
 - 7) drastic cuts in an innovative reading program, ESL, music, industrial arts, and physical education; and
 - 8) 17% of teaching staff now instructing classes for which they are untrained.

Reading this article on San Jose High School gives one some inkling of the feelings of despair in schools like this. Faced with an increasingly diverse, low-income student body with many needs, the staff is given fewer resources to cope with the day-to-day demands of the new immigrants' adjustment problems and other students' behavioral problems. (A copy of "The Slow Death of a High School" is in the Appendix.) An excerpt from the article gives some sense of the effect of the school's condition on teachers:

Perhaps the greatest source of frustration and discouragement to San Jose High teachers is the realization that they are trapped in a downward spiral. Without an infusion of new resources and personnel, they sense that problems will accelerate. The downward spiral can be characterized by increased teacher workload, leading to increased teacher job dissatisfaction, and thence to declining teacher effectiveness. As effectiveness begins to drop, the more able students start to lose interest in or withdraw from school. At the same time, the percentage of lower-ability students (requiring greater amounts of instructional time) grows rapidly, taxing diminished teacher energies even more.

California, once an educational leader in the nation, is now below the national median expenditures per pupil, although the State's per capita income is fifth highest in the nation. (23) The fiscal crisis is expected to worsen as the State surplus funds which were applied to local schools have been used up. Moreover, projected federal cuts in education support will be another blow to the schools. In some localities, private industry is making some efforts to assist schools by providing equipment and expertise. Oakland, for example, is benefitting from an "Adopt-a-School" program in which business firms work closely with individual schools. Still, there is a serious fiscal crisis in the public schools today, a problem that underlies the unsettled state

of secondary education.

The College Preparatory Curriculum

A fairly widespread consensus exists that the primary reason for the poor preparation of high school students is a decline in the quality and the offerings of the college preparatory curriculum. According to a 1979 study of precollege science education by the National Science Foundation,

No period in American history has witnessed the introduction of so many education innovations... as the last 25 years... School curricula have been influenced by currents and counter-currents including liberal and conservative ideologies, innovators and traditionalists, accountability adherents, promoters of management by objectives, elitist versus populist philosophies, and advocates of technological applications to education. Considering all of these forces seeking to change the educational curriculum, it is not much wonder that the school curriculum sometimes appears to be in disarray. (24)

Recent decades have seen the development of a more diverse secondary curriculum and the proliferation of courses such as driver training, drug abuse, and safety education. Even the academic courses have been "watered down" and splintered with the offering of prealgebra or a two-year algebra series (in place of Algebra I). School personnel say there is no "core" in the curriculum. Courses are added or deleted because of State or federal legislation, without regard to the total educational process.

In California, high school curriculum is determined at the local, not the State, level. The State Education Code merely states that courses in these subjects should be offered in grades 7 - 12:

Driver Education
English
Fine Arts
Foreign Language

Mathematics
Physical Education
Social Science
Vocational/Technical Education

The Code also specifies that students must be taught about personal and public health and safety, alcohol and drug abuse, early California history, and ethnic groups. (California Education Code Title II, Sec. 51210-15). School districts establish their own high school graduation requirements and usually allow individual high schools to design their own curricula. Thus, there may be little comparability between course lists or courses in the same subject among high schools within one district. The State Department of Education reported in 1977-78 that the "typical" school district required its graduates to have 3 years of English, 1 year of American history, 1 semester of American government, 1 year of math, and 1 year of science. (31)

Some states set curriculum standards by establishing mandatory graduation requirements for all high schools. Oregon's Department of Education has proposed comprehensive standards for public schools that set course content, credit, competency, and attendance requirements for high school graduation. California's Board of Education is considering ways in which it can act to improve secondary curriculum standards. (25)

What are the problems in the secondary curriculum? It is dull and uninteresting to students. Much of it is obsolete. Manual typewriters are used in typing classes; mathematics may be taught without calculators or computers; science lab equipment is scarce; instructors are not always fully qualified or up to date in the subject matter; textbooks are written for lower achieving students.

The curriculum is fragmented. Courses are not sequenced. Few advanced courses are available for the college bound. Classroom instruction time has actually decreased in financially pressed schools. Five Bay Area school districts (San Francisco, Richmond, Hayward, Fremont, and San Jose) require only five periods per day, or just a little over four hours in the classroom. In some instances, there is an optional sixth period. All of these schools previously required six periods but were forced to cut back because of lack of funds. This shorter day makes

it more difficult for students to complete the University's A-F requirements or consider taking advanced courses when they are offered.

High school surveys have found that only 31% of the respondents think their school work is "interesting" and only 42% rate their high school as "excellent or good." (26, 27) In answering an open-ended question about high school experiences, a majority of a sample of 1975 graduates criticized their schools for not effectively preparing them for college and careers. (28) Many suggested stricter academic and disciplinary standards and complained that they did not realize the importance of taking additional academic courses.

Over half of the respondents in a 1979 Gallup Poll of teenagers said that they were "not studying hard enough" and that subjects such as English, math, history, and science should receive more attention in high school. (29)

Responses to questions on high school preparation in ACT questionnaires show little change from 1973 to 1979. In 1979, 50% of the respondents said their preparation for college was "good" and 19% "excellent." Eleven percent checked "below average" or "very inadequate," while in 1973 only 4% chose those responses. Slightly more were satisfied with their classroom instruction and guidance services in 1979 than in 1973. (30)

Public secondary schools are required to be all things to all students. They must prepare the college-bound, the vocational student, the bilingual, the disabled. In a period of diminishing resources and increasingly diverse demands, school administrators are not always able to provide adequately for all their students. In the last two years, especially, high school resources have been diverted to preparing students for the State-mandated proficiency examinations.

Proficiency Examinations.¹ Effective June 1981, no student can be graduated from a California high school without passing "proficiency" or "competency" examinations in three basic skills: reading, writing, and computing. Each district, with community input, has developed its own exams and established its own standards, with a fixed, known-in-advance, passing point. School personnel report that the proficiency standards are very low. Students are allowed to take the exams beginning in the 9th grade and to repeat until they pass. (A copy of a sample proficiency test is in the Appendix.)

This year, 1981, is the first year in which failure to pass the exam will result in a withholding of the diploma. Twelfth graders who do not pass will not be graduated. Schools are giving special preparation classes and "proficiency tutoring" for students who do poorly in earlier test administrations. Oakland Unified School District's Proficiency Center reports that 6-week mini-courses are offered at the high schools and after-school tutoring by teacher aides at ten community centers.

Schools are concerned, of course, that their students make a good showing. Some schools have had to devote a disproportionate share of their resources to remedial work because of the failure of more of their students to pass in earlier grades. When Oakland high schools administered the first proficiency exams to their tenth-grade students in 1978, only 16-18% of the test-takers in three low-income schools passed the test, while 61% passed at Skyline High School. Santa Clara School District dropped trigonometry and calculus so that it could prepare its large number of recent immigrants and refugees for the proficiency testing. Another district has not been able to work on a curriculum development

¹ Note that these differ from the California High School Proficiency Exam (CHSPE), which enables a student to obtain a State high school diploma as early as the end of the tenth grad. The proficiency exams described in this section do not accelerate graduation but constitute a requirement for graduation.

plan because its major resources are diverted to the proficiency test preparation.

We turn now to discuss briefly the preparation of high school students in three important academic areas: writing, math, and science.

Writing Skills. Complaints about students' lack of writing skills, analytical ability, and critical thinking have always existed, and it is difficult to know whether the complaints and/or the skills are worse today than in the past. What we do know is that these skills are critical for success at the University.

Test results give a mixed message. For Berkeley freshmen, the SAT verbal mean score, declining since 1974, showed a slight improvement in 1980. (See Tables 2 and 3.) The English Composition Test mean score, however, has been declining since 1976. Although the University has required only three years of high school English for admission, most entering freshmen in recent years have had four years. (Effective for Fall 1981 admission, the English requirement is four years.) Less than half of these students, however, feel well prepared by their high schools in reading and composition, according to survey data. (2) Use of the Student Learning Center on the Campus also demonstrates students' need for better preparation in this area. The largest proportion (32%) of the Center's student contact hours are in the Language/Writing/Social Science component, and the primary demand is from Subject A students. (37)

National testing of seventeen-year-olds shows some improvements in writing and reading scores over the past ten years. The 1979 writing assessments by the National Assessment of Educational Progress (NAEP) found a slight decline in "quality" and "rhetorical skill" in persuasive writing but considerable improvement in narrative writing. In responding to questions about writing instruction, the seventeen-year-olds said they did not receive "much direct instruction" in writing and were not required to do much writing in high school. Only 7% said they are

routinely engaged in activities of prewriting, creating multiple drafts, receiving written and oral comments about their writing from teachers, and rewriting to improve their papers. Twenty-one percent said they usually enjoy working on writing assignments; 53% said they sometimes enjoy it; and 24% said they never enjoy writing assignments. (33)

Table 8 contains test scores in the California Assessment Program from 1975 through 1980. Twelfth-grade writing scores show little change, although sixth-grade scores have increased each year. Some educators suggest that the lower scores among the older students may be related to greater discipline problems at the high school level. (36)

The improvement of students' writing skills through teacher training is the goal of the Bay Area Writing Project (BAWP), which is associated with the UCB School of Education. "Master" English teachers are invited to summer institutes, where they receive specialized training in writing and the teaching of writing. Institute-trained teachers then train other teachers. Ninety-eight secondary teachers in Bay Area schools have participated in these invitational institutes. All Bay Area school districts have sent teachers to BAWP workshops. Teacher participation reportedly has a favorable impact on morale as well as teaching skills. Apparently, the opportunity for professional development, for sharing ideas with peers, and for contact with the University are very important to today's teachers who generally receive little recognition and feel isolated in their classrooms.

The lack of writing and "critical thinking" skills is one that concerns educators. The recent Rockefeller Commission study of the humanities in education recommended that critical thinking and writing be among the basic skills that schools should develop in their students. (35)

High school English teachers complain that they do not have enough time to teach writing properly to students who are already far behind in

TABLE 8
CALIFORNIA ASSESSMENT PROGRAM

Number of Students Tested and Average Test Score by Grade Level
and Content Area, from 1975-76 through 1979-80

Grade level and content area	Number tested	Average test score								
		1975-76	1976-77	1977-78	1978-79	1979-80	Difference			
							75-76 to 76-77	76-77 to 77-78	77-78 to 78-79	78-79 to 79-80
Grade 3	286,413									
Reading		242	243	245	248	250	1	2	3	2
Written Language		--	--	--	--	250	--	--	--	--
Mathematics		--	--	--	--	250	--	--	--	--
Grade 6	281,907									
Reading		66.1	65.9	66.3	66.8	67.5	-0.2	+0.4	+0.5	+0.7
Written Language		62.5	63.6	64.1	64.6	65.4	+1.1	+0.5	+0.5	+0.8
Spelling		63.6	63.6	64.1	64.5	64.9	-0-	+0.5	+0.4	+0.4
Mathematics		57.4	57.7	58.5	59.0	59.8	+0.3	+0.8	+0.5	+0.8
Grade 12	233,125									
Reading		64.1	63.6	63.3	63.2	63.1	-0.5	-0.3	-0.1	-0.1
Written Language		62.3	61.9	62.1	62.4	62.4	-0.4	+0.2	+0.3	-0-
Spelling		68.0	67.9	68.4	68.4	68.8	-0.1	+0.5	-0-	+0.4
Mathematics		67.0	66.3	66.3	66.3	66.8	-0.7	-0-	+0.2	+0.3

Note: The scores for grade 3 are now reported in scaled score units from 100 to 400. Grades 6 and 12 scores represent the percentage of questions answered correctly.

Source: California Assessment Program, 1979-80 Annual Report.

their verbal skills when they come to high school. A typical teaching assignment of five English classes requires grading of perhaps 150 papers every two weeks. This gargantuan task leaves teachers with little time or energy for students with special needs. With the numbers of bilingual students increasing in the high school population, the teaching of writing is likely to be an area that will require even greater attention in the next few years.

Math Preparation. UCB students are, on the average, well prepared in mathematics. Their mean SAT scores are way above the national and State averages for college-bound seniors. (See Table 2.) The majority of our entering freshmen have taken four years of high school math.

Nonetheless, a number of students encounter difficulties with college math, often because the quality of their high school classes was poor, the content was not fully equivalent to the college-preparatory level, or because they did not take advanced work. If a high school student takes only algebra and geometry, usually during the ninth and tenth grades, then there is a gap of two years without math prior to University entry. Often the lack of well-established study skills is the cause of failure.

High school students and even high school counselors are not always aware that a solid foundation in high school mathematics is essential for a growing number of college majors. Calculus is now required not only for engineering and physical sciences but also for many other fields such as architecture, business administration and forestry.

The difficulties new students encounter with college-level mathematics has led to the development of math workshops for freshmen on this campus. Even students with high GPA's and advanced high school math need tutoring and workshop assistance for Math 1A (calculus). How can this be?

Although the need for help is primarily a consequence of the transition from high school to the University, weak high school preparation in content as well as study skills contributes a considerable amount to first-year adjustment problems.

The state of the high school math curriculum is due, in part, to inconsistency in teaching methods, to heterogeneous groupings of students, and a focus on computation rather than problem-solving skills. In some schools, courses that prepare students to pass math proficiency exams take precedence over college-preparatory courses. The focus on elementary skills utilizes the schools' scarce resources in noncollege math and diminishes funding for college-preparatory courses. Declining revenues, in turn, have forced the dropping of advanced math courses that have low enrollments.

A severe shortage of fully qualified high school math teachers is another aspect of this problem. Declining high school enrollments and budget cuts have discouraged many teachers. Private industry attracts new math graduates and even experienced teachers with high salaries and more security. Some schools, especially junior high schools, have very few fully-qualified math teachers. Counselors and coaches are often assigned to teach math classes.

College preparatory math courses may also be "watered down" to accommodate the level of the poorest students. A former math teacher described a situation in which some geometry students were reading at the 7th-grade level.

The math department is not a high priority in many schools. Some administrators believe "anyone" can teach math. Modern equipment such as costly computer terminals is not high on the list in this era of shrinking budgets.

There is, certainly, great variation from school to school. High

schools with an academic tradition usually have strong departments. The amount of student demand for advanced math makes a difference, and schools with well-established MESA¹ programs frequently see an increase in enrollments in advanced algebra/trigonometry.

Within the Oakland high schools, the percentage of students taking trigonometry can vary from 1% to 10% of the student body at a given school. Only 16% of all (11,348) high school students in Oakland are currently enrolled in any college-prep math course. Nationally, 13% of high school graduates have taken trigonometry; only 54% of the country's senior high schools offer trigonometry. (45)

The Berkeley Campus has been involved for many years in the improvement of math instruction in the public schools. There are currently fifteen UCB-sponsored math projects in the elementary and secondary schools, including teacher workshops, math resource materials, and student activities. A new project, the Cooperative College Preparatory Program (CCPP) was established to strengthen school-site programs that prepare students for the University through planning and instructional support, teacher training, and curriculum improvement and articulation between junior and senior high schools. Another project, EQUALS, has trained over 300 school personnel in 80 schools to use materials and instructional strategies designed to increase the participation rate of females in the math field.²

This campus, however, no longer has a teaching credential program for math teachers. The School of Education is phasing out several of its teacher-preparation programs, and the last math teachers were graduated in 1980. Only an average of ten math teachers per year were trained on

¹ MESA (Mathematics, Engineering, and Science Achievement) is a State-wide program that prepares minority students for math-based careers.

² For descriptions of UCB programs for secondary schools, see Directory of Campus Activities for Elementary and Secondary School Students and Teachers, Office of Student Research, Berkeley, March 1981.

this campus since 1975.

Science Preparation. The quality of high school preparation in science is generally less adequate even than in mathematics. To begin with, most school districts in the State require only one year of science for graduation, and the University also requires only one year of science (laboratory) for admission.

College-bound seniors in California report fewer years of science than do seniors nationally. The majority of UCB freshmen had two years of physical science (better than the State and national averages) and one year of biological science in high school. (See Table 4.)

The American Association for the Advancement of Science (AAAS) recently described science education as being in a "state of crisis." (38) Noting that both secondary and postsecondary schools have low requirements in science and math, the association pointed out that students who take no math or science after the tenth grade have "effectively eliminated" science and engineering as careers. AAAS plans to ask colleges to raise their admission standards and develop enrichment programs in conjunction with museums and science centers. AAAS will join with other scientific and educational organizations in recommending to the President and Congress that a larger portion of the federal education budget be directed toward science.

In the 1960's and early 1970's, when the National Science Foundation (NSF) sponsored science teacher institutes, this campus participated in training over 6000 math and science teachers, primarily through summer institutes. Since the termination of NSF funding, there has been much less activity in this field. UCB does, however, continue to administer science projects for teachers and students, primarily through the Lawrence Hall of Science.

The high school science curriculum suffers from the general problems already described. Essential equipment is not available. Berkeley High

School, for example, finds it difficult to replace the triple-beam balances used in chemistry, as so many are stolen. A chemistry teacher at another high school said that only \$65 was allocated for a semester's supplies budget, and one ounce of a frequently used chemical costs \$25.

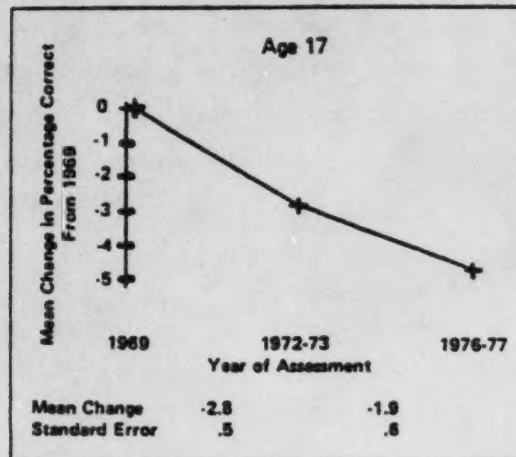
In some high schools, physics was dropped from the curriculum when the early Proposition 13 cuts were made. In most instances, physics classes have been reinstated. Some high schools have arranged for nearby community colleges to offer advanced science and math courses for their high school students. Pittsburg High School and Los Medanos College have worked out such an arrangement.

Even in wealthier suburban districts, science has not fared well. With declining enrollments and scarce funds, science classes have been decimated. In Mt. Diablo School District, for example, an advanced physics class was eliminated, and more non-science majors are teaching science than five years ago.

Except during the post-Sputnik era of heightened interest in space exploration and science generally, science has usually been neglected in the high school curriculum. In elementary school, less time is devoted to science than to any other subject. (46) Therefore, declining achievement in science since the 1960's should be no surprise. Table 9 shows the decline in science scores for seventeen-year-olds from 1969 to 1976. A group of educators who reviewed the three national test administrations (1969, 1972, and 1976) suggested that the high scores in 1969 were largely due to the enrichment of both formal and informal science learning experiences that were engendered by the public interest in space exploration and science. (39)

Academic Enrichment Programs. A number of diverse programs in secondary schools provide enrichment for the college-bound. They include advanced placement, independent study, concurrent enrollment, and self-paced learning.

TABLE 9
CHANGES IN SCIENCE ACHIEVEMENT FOR 17-YEAR-OLDS,
1969, 1972-73, AND 1976-77



Source: National Institute of Education, Three National Assessments of Science: Changes in Achievement, 1969-77.

In California, 15,000 students are enrolled in "advanced placement" courses. These college-level classes offered by specially trained teachers enable the participants to skip over some entry-level courses when they enter college. The teacher training, course descriptions, and the examinations that qualify the students for advanced study in college classes are prepared and administered by the College Entrance Examination Board (CEEB). California is second in the nation in the number (15,000) of advanced placement students; New York is first, with 21,000. (40)

Concurrent enrollment is another option that allows eleventh and twelfth grade students to attend community college classes for part of the day. Individual school districts also have similar agreements with four-year public and private postsecondary institutions. Thus, twelfth graders at Oakland's Skyline High School can attend Mills College, Merritt College, or UC Berkeley for one class each semester. The number of Skyline students using this option has been increasing.

On this campus, 118 high school students were enrolled in freshmen courses in Fall 1980. The largest number, 26, were from Berkeley High School; the others came primarily from Skyline, Albany, Piedmont, Del Valle, and El Cerrito.

Approximately 20% of California's school districts provide the "independent study" option that was authorized by enabling legislation in 1976. This legislation permits schools to give credit (and receive ADA funding) for learning activities conducted off campus. These activities may include self-directed study during travel, completing special assignments without attending class, or starting a student-managed enterprise or community service project.

Other enrichment programs, directed at underrepresented minorities, provide tutoring, summer sessions, and other activities to improve the preparation of minority students for postsecondary education. The Berkeley Campus administers several minority outreach programs for students in over

50 schools in the Bay Area.

High School Teachers

In the interviews conducted for this study, low teacher morale was frequently suggested as the most serious problem in the high schools. Many of the factors contributing to this low state of morale have already been mentioned in various sections of this report. However, a comprehensive description of the conditions that affect the daily lives of teachers (and students) in high schools seems an appropriate way to summarize the status of secondary school education today.

Lack of Job Security. Public school teaching was once among the most secure of all occupations. Only in the past four years has the specter of lay-off come to haunt secondary teachers--first as a consequence of Proposition 13's immediate budget impact in June 1978--and now, compounded by declining secondary school enrollments. In San Francisco, for example, over 25% of the district's teachers have been laid off since 1978.

Furthermore, because there is no longer a well-established financial base for the schools, budget planning is chaotic. Property tax revenue no longer is adequate support for schools, and State surplus funds are used up. Thus, each Spring many teachers receive tentative lay-off notices but do not know until summer whether, in fact, they will actually be laid off. A recent newspaper article states that the American Federation of Teachers predicts that one out of three school teachers will receive a lay-off notice next year. (47) Thus, incentive to prepare for the next academic year or to invest energies in long-term projects is undermined. Additionally, a teacher with seniority is more likely to be transferred to a different school now than in the past because of declining enrollment and school closings. In Mt. Diablo School District, two high schools have closed since 1975. Thus, institutional identification is lost when a teacher is moved from a school where s/he has been for ten or twenty years.

Teacher Salaries. School salaries have not kept pace with inflation; in fact, many teachers are making less in spendable income each year. The State Department of Education estimates that, between 1967 and 1976, teaching salary increments, when adjusted for inflation, were less than 1% for the ten years. The national salary increase for teachers, 1.2%, was little better. A national study estimates that the average U.S. teacher lost a total of \$1,468 in purchasing power in the 1969-70 to 1979-80 decade. (41)

Average secondary teacher salaries in 1979 were \$15,474 nationwide and \$17,149 in California. There is a wide variation among school districts; large urban and suburban districts usually offer higher pay than smaller city and rural districts. Beginning salaries for secondary teachers (with the required minimum one year of graduate study) generally do not compare well with entry salaries for college graduates in technical fields.

UCB's Career Planning and Placement Center reported that 1980 graduates with bachelor's degrees in computer science, mathematics, and physics received median entry salaries of \$1,600 - \$1,700 per month in private industry. Entry-level secondary school teachers (with one year of graduate study) received \$1,000 - \$1,300 per month. This discrepancy must have some effect on the job choices of math and science graduates and helps to explain the teacher shortage in these fields. Even more importantly, these salaries may convey, in this age of heightened economic consciousness, a sense of the relative prestige of the teaching occupation.

The Pool of Teachers. As fewer college graduates choose teaching for a variety of reasons and younger teachers are laid off due to low seniority, the age range of the remaining teachers is shortened. The average age of San Francisco School District teachers is 54, according to a statement by the School Superintendent.

The influx of new ideas and energies brought by newly trained teachers is thus lost. Many of the older, experienced teachers are

demoralized. A study of inner-city teachers in Los Angeles found that over one-half of those contacted would not, if starting over, choose teaching, and about half were looking for other employment (42)

Some school administrators believe that there are far fewer teachers today than formerly who have the commitment, drive and energy to inspire students to excellence and who are willing to devote the time required for quality teaching.

By 1988 it is expected that the supply of new teacher graduates will equal only 80% of the total demand nationally. (46)

Working Conditions. Secondary teachers cope daily with student apathy, lack of interest in subject matter, lack of respect and appreciation. Teachers report that students' disruptive behavior and poor attitudes toward learning are major factors contributing to low job satisfaction. Many teachers believe school disciplinary standards are not consistently applied, not strict enough, and not comprehensive enough.

Teachers frequently do not receive support from administration, the School Board, or the community. Instead, they are the focal point of criticisms and complaints by individual parents and community pressure groups. Isolated in their individual classrooms much of the time, they do not have even the consistent support of their colleagues.

Administrative demands on teachers have increased with the proliferation of State and federal programs. Teachers resent these "external" requirements for completion of forms or other standard activities that have little or nothing to do with the subject matter and that divert their time and energy.

Teaching supplies, equipment, and general resources have become scarce in the past four years. School budgets tend to run out early in the Spring. Obsolete equipment cannot be replaced. Athletic equipment

is stolen. There are not always enough textbooks for an entire class. The physical plant is deteriorating and building maintenance is inadequate.

Professional Status and Unions. Teachers' status has changed over the years for a variety of reasons, including unionization and teacher strikes. Prior to California's collective bargaining legislation enacted in 1965, teacher strikes were a rarity: there were only two in the prior eight-year period. Then, between 1965 and 1977, an average of nine strikes per year occurred in the State. Teacher unions doubled their membership in the past ten years.

Teacher strikes have also become longer and more bitter as job retention has become a major issue. Declining enrollments as well as fiscal constraints have created an unprecedented situation. Many Bay Area school districts have had strikes in recent years over salaries, working conditions, and seniority, which have left legacies of bitterness. Berkeley High School's 1975 strike reportedly still underlies bad feelings among some staff. Mt. Diablo district's 1978 strike was "devastating" to morale and led to the recall of three school board members. San Francisco's six-week strike disrupted the 1979 school year and created serious difficulties for graduating seniors.

Unionization has also added to the fragmentation of school control. Always subject to parental and other community pressures, teachers and administrators have even less control today over classroom conditions because union contracts specify class size and other requirements. Unions, of course, have beneficial effects on teachers' working conditions that may outweigh the negative effects described here. These effects represent another example of changes in the schools.

Community Pressures. Teachers have always been subject to community pressure. Traditionally, their status as role models required them to meet high community standards for personal and professional conduct. Individual parents sought help from or criticized their children's

teachers.

Today, the number and variety of special interest groups that bring pressure to bear on school personnel is staggering: union/teacher associations, PTA's, conservative/liberal community groups, reformist educators, school district/State Department of Education/federal Department of Education, and ethnic organizations. There is no longer a unitary set of standards for the schools and their personnel, and they are subjected to a vast number of diverse expectations. The sense of frustration that this engenders in teachers can only be imagined.

In some schools, if a teacher "demands" completed homework or assigns few A's, students or parents complain to administrators who then suggest that the teacher ease up on demands. Sometimes teachers themselves decide to assign inflated grades because they want their students to be admissible to four-year colleges.

Teachers interviewed for this study feel that "the system" is burning them out. They feel a general hopelessness and resentment of an impersonal bureaucracy and an unappreciative public. Gone are the days when teachers had status, respect, and cooperation. Now there is pressure for higher test scores and college-admissible grades for a school population that is increasingly diverse, undisciplined, and unstable. And these increased demands are to be satisfied within a framework of declining resources and shrinking salaries.

Counseling Services

It is obvious that counseling services play a major role in students' preparation for college. If a student does not follow the proper sequence of courses, takes a nonequivalent course, or is not offered special academic assistance when needed, that student's post-graduation options are severely curtailed.

Since Proposition 13, most schools have cut their counseling staffs.

Lost Gatos High School dropped all of its counselor positions in 1979. Lowell High School's counseling office lost three positions in 1979. San Francisco schools have an overall student-counselor ratio of 600 to 1. The standard recommended by the profession is 250 students per counselor. The several Bay Area school districts we surveyed reported ratios ranging from 350 to 600.

Schools in affluent areas may receive counseling assistance from parent volunteers who organize and staff career information centers. Acalanes High School in Lafayette has such a parent-run center.

Student surveys indicate that both quantity and quality of high school counseling are variable. Thirty-four percent of UCB's Fall 1980 freshmen who completed survey questionnaires reported that they found their high school counselors to be "not helpful." (2) In a newspaper-conducted survey of San Francisco graduating seniors in June 1979, 41% of the respondents said it was "very difficult" to see a counselor and 40% said that counseling was of "little or no benefit." (43)

A UC survey of 1975 high school graduates asked an open-ended question about experiences in high school. (28) Responses included a number of critical comments about counselors:

"First of all, I would like to criticize the role of my high school counselors. Not only were they not helpful, at times they were potentially hurtful."

"The counselors should have been more useful in giving classes on how to prepare for college. I felt they were just interested in getting you out of high school..."

"Counselors only were interested in speaking to those students who had very high grade points."

"My high school counselors had a lot of information about different careers, but gave me a lot of wrong information pertaining to my career... In college I had to take a lot of courses I should have taken in high school but did not know because of the counselors."

"Counseling in the high school systems could definitely stand improvement. I am currently enrolled in courses which I should have had in high school."

"... Also, the counselors were definitely incompetent. They had no sincere interest in helping the less gifted or problem students and this was clearly visible."

"High schools should inform students more on what's needed for various careers and not just requirements. Too often requirements are only a minimum and students are not prepared for advanced college or university levels."

Counselors interviewed for this study report that they are increasingly involved with disciplinary and administrative duties. They feel they need more time to talk with students and with parents about college-going and to interface with the many pre-college programs in the schools. They are concerned especially that minorities are not getting adequate educational advising with regard to career goals and college selection. The counselors find it difficult to keep up with college admission requirements and indicate a need for more contact with the University.

III. IMPLICATIONS FOR THE UNIVERSITY OF CALIFORNIA, BERKELEY

The description of high school education outlined in this paper is a gloomy picture. It would appear that everything is in decline: enrollment, finances, curricular standards, teacher morale. Some educators believe the bottom has been reached and the attention currently being given to high schools in the media and by a multitude of agencies and commissions is the beginning of a turn-around. However, most observers of the scene agree that strong leadership is needed to save the public schools.

In California a number of initiatives are underway to foster cooperative efforts among the educational segments. The California Roundtable on Educational Opportunity, the UC-CSUC-CCC intersegmental faculty committee, the State Department of Education, and local school districts are working hard to establish curriculum standards and better articulation between the high schools and postsecondary institutions.

The University, and certainly the Berkeley Campus alone, cannot change the school system. The deficiencies in the schools are enmeshed in the vast economic and cultural changes taking place in our society. However, the University cannot ignore its responsibilities toward education in the State. And, of course, it has not.

For many years the University of California has been closely involved with the public schools through a variety of activities in teacher preparation, in-service teacher training, academic enrichment for elementary and secondary school students, minority outreach programs, and University recruitment. More than fifty programs are currently offered by the Berkeley Campus for elementary and secondary school students and teachers.

Nonetheless, in spite of all this activity, there exists a sense in the secondary schools and on the Campus as well that "closer" relations are needed between the Campus and its source schools. There is a feeling

among some school personnel that the University does not understand "the problems" of the high school and that UC's traditional role vis-a-vis the schools has been that of the "expert." School personnel are asking that this relationship be a cooperative one in which the University "asks," rather than "tells," the schools what their problems are.

School administrators want us to know that the precollege program is only one aspect of the curriculum for which they are responsible. Proficiency examinations, achievement testing, bilingual classes, and vocational education occupy much of their attention.

Secondary school teachers want us to know that they need professional support and development more than ever in order to cope with an increasingly diverse student body and the various community pressures. They suggest that UC faculty visit the schools, talk with teachers in their field, and sponsor workshops and institutes on the Campus to keep high school teachers in touch with the latest research.

Counselors want us to know that advising students on UC admissions is but a small part of their job. The great majority of their students go to community colleges or the CSUC colleges. For example, out of 13,496 Alameda County high school graduates in 1979, 38% enrolled in community colleges, 9% in CSUC, and 8% in UC. (44)

Professional educators note that the University's admission requirements have had a negative impact on the standards in college preparatory programs. The trend toward lowering of UC requirements some years ago (now reversing) is considered to have harmed the high school curriculum. Now, the University's reliance on grades and test scores is contributing to an over-emphasis on grades. Students want to take "easier" courses where they can make better grades, rather than taking more advanced courses, when they hear that a 3.75 GPA is the cut-off point for a particular college at UCB. As noted earlier, the redirection policy also contributes to a concern for overall GPA, rather than course content.

Some members of the State Board of Education are asking that the University and other postsecondary institutions review their admission standards and give more consideration to course content than grades, i.e., a "B" in trigonometry would be worth as much as an "A" in algebra.

All segments of education, including the Campus, are asking that the University system provide leadership in improving educational standards and in encouraging cooperation with the secondary schools.

The Campus needs to review its role vis-a-vis the high schools. We should be asking the schools what they want from this institution. How can we better work together to improve our students' education? What information can the Campus provide to schools about their graduates? What information can the high schools give us?

The Berkeley Campus can, at the least, have some impact on its major source schools, if not on the many high schools that send only two or three students per year to this campus. We can provide more feedback to high schools on their students' performance here. We can inform high schools about the specific skills required in our freshman courses. We can offer more contact between Berkeley faculty and school personnel. We can facilitate professional development of teachers through workshops specifically designed for their needs.

Public school teachers and administrators are as concerned as Campus faculty are about their students' preparation. They welcome an exchange of ideas and support from the University. This is a time for taking stock of our relations with the schools and our role vis-a-vis secondary education.

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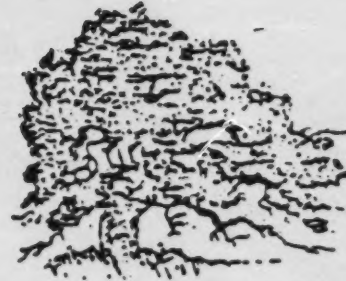
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APPENDIX

OAKLAND UNIFIED SCHOOL DISTRICT
Department of Research & Evaluation

HIGH SCHOOL GRADUATION PROFICIENCY TEST



STUDENT GUIDE WITH SAMPLE TEST

Research
Report
No. 15

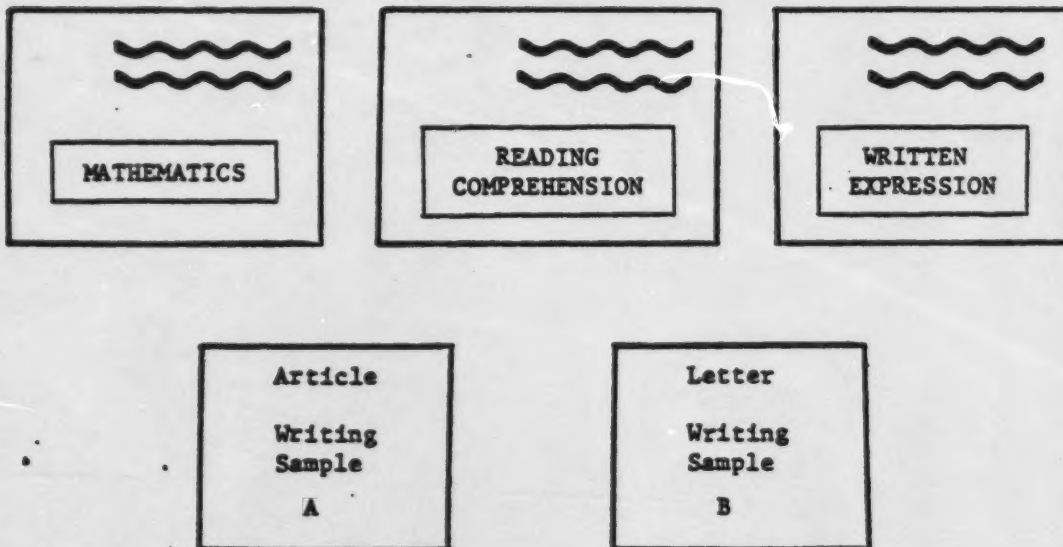
OAKLAND UNIFIED SCHOOL DISTRICT
Department of Research and Evaluation

The Oakland High School Graduation Proficiency Test consists of three sub-tests:

1. Mathematics
2. Reading Comprehension, and
3. Writing

The Writing test is divided into three parts: (a) Written Expression, (b) Writing Sample A, and (c) Writing Sample B.

There are, therefore, five (5) different parts to the test.



The questions on the Reading, Mathematics and Written Expression sections of the test are multiple-choice items. This means that for each question, you are required to select the correct answer from among three or four choices and mark your response on a separate answer sheet. Some sample questions and answer sheets are provided in this pamphlet. You may use these for practice. While there is no time limit for the test, you may expect to finish each section in about 50 minutes.

Unlike the Reading, Math, and Written Expression tests, the Writing samples are student produced compositions. You are given two questions or topics. You must then write a response to each question in your own words. Writing Sample A requires that you write an explanation or description of something - a favorite person or a memorable experience, for example. Writing Sample B requires that you write a business letter such as a letter of application for a job.

CONTENTS OF THE TEST

The tests are based on the Proficiency Standards developed by Oakland teachers, staff, and community representatives. Here is a brief description of the proficiency standards, which were adopted by the Oakland Board of Education.

READING

The Students Will be able to:

1. Read labels on merchandise
2. Read an informational chart
3. Read a newspaper article
4. Read a sales contract
5. Use the yellow pages of the phone book
6. Understand the California State Vehicle Code book
7. Understand auto insurance
8. Use a dictionary
9. Read a paragraph and understand it
10. Understand a charge account statement
11. Read math statements accurately
12. Read an editorial
13. Use the telephone directory
14. Locate legal assistance
15. Read a street map
16. Use synonyms
17. Put words and names in alphabetical order
18. Fill out a 1040A income tax form
19. Use reference materials
20. Read and understand a job want ad
21. Use a road map
22. Use a library card catalog
23. Use emergency telephone numbers

MATHEMATICS

The Student Will be able to:

1. Reconcile a bank statement
2. Read a utility meter
3. Figure sales tax
4. Find the interest on a loan
5. Verify the accuracy of a grocery bill
6. Reduce a recipe to half
7. Verify that change is correct
8. Multiply mixed numbers
9. Subtract whole numbers
10. Multiply whole numbers
11. Find the perimeter of a figure in metric measurement
12. Read graphs and tables
13. Figure pay earned on the job
14. Figure unit pricing
15. Keep a checkbook record
16. Divide mixed numbers
17. Complete the 1040A income tax form
18. Find perimeter and area in inches
19. Divide whole numbers
20. Purchase a money order
21. Figure discounts on purchases
22. Measure a line segment
23. Write a check correctly
24. Verify a sales slip

WRITING

The Student Will be able to:

1. Fill out a job application form
2. Write a description on doing a specific job or task
3. Prepare written notes based on verbal message
4. Organize ideas
5. Write a paragraph
6. Use correct word usage
7. Capitalize words correctly
8. Use correct punctuation
9. Spell correctly
10. Write a report of an incident
11. Answer a help-wanted ad in writing
12. Write legibly
13. Write a letter of complaint

SAMPLE TEST

HIGH SCHOOL GRADUATION PROFICIENCY

READING COMPREHENSION

DIRECTIONS: Answer the questions on the following pages. Use scratch paper to do your work if needed. Fill in the space on your answer sheet that has the same letter as the answer you choose.

1. Find the word that comes after the underlined word in alphabetical order

Transplant

- A. transmit
- B. trapeze
- C. tinsel
- D. tooth

2. The guide words on one dictionary page are fiction and field. Select the word below which would be on that page.

- A. field day
- B. fickle
- C. fiddle
- D. fiend

3. Read the words below. Select the correct synonym for the underlined word.

Grip

- A. feel
- B. grasp
- C. touch
- D. hit

Use this article to answer the next two questions.

The California Indian Museum is in Sacramento. It was first opened in 1940. It is there to remind us of our Indian heritage and to tell us about the Indian way of life in California.

The displays, which are changed often, include arrowheads, tools made from rocks, minerals, baskets, featherwork, pottery, maps, clothing, cradles, and jewelry. They tell about myths, ceremonies, trails, and dances. There are drawings of houses and different kinds of boats.

The museum is open every day from 10 a.m. to 5 p.m., except holidays. Admission is 25 cents for adults. Children are admitted free.

4. Where is the Indian Museum?

- A. San Francisco
- B. Sacramento
- C. Los Angeles
- D. San Diego

5. How many hours a day is the museum open?

- A. 5 hours
- B. 15 hours
- C. 10 hours
- D. 7 hours

Use this ad to answer the next three questions

Take Advantage of This Youth Soccer Offer

Save \$1

**THE COMPLETE FAMILY
BOOK OF SOCCER**

Many illustrations

Color photos

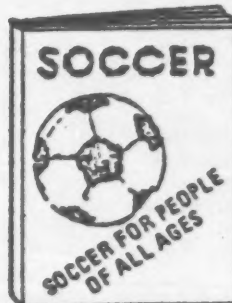
Action shots

Rules

History

Tips

Only \$3 each, including tax,
postage, and handling



SOCCER UNLIMITED • P.O. Box 4400
Sacramento, California 95805

Name Tony Evans Age 10
Address 24 Edwards Street Apt. 17B
City San Francisco State Ca Zip 94101

Enclosed is a Check ☐ Money Order ☒ for \$3 made out to
Soccer Unlimited. Please allow five weeks for delivery.

6. This is an order form for:

- A. a soccer ball
- B. a soccer book
- C. soccer shoes
- D. soccer socks

7. The price of this book:

- A. does not include tax
- B. is \$3, plus tax
- C. includes tax but not postage and handling
- D. includes tax, postage, and handling

8. In which town is this business located?

- A. Los Angeles
- B. San Diego
- C. Sacramento
- D. San Francisco

Use this form to answer the next two questions

Emergency Information

Fire: 415-2115 Your fire department's number
Police: 555-1155 Your police department's number
Doctor: 515-0734 Your doctor's number
Ambulance: 555-1157 Ambulance number
F.B.I.: Federal Bureau of Investigation: Dial 481-9110
Coast Guard: Search and Rescue Emergencies: Call 985-9822
Highway Patrol: - To report emergencies, call OPERATOR: Ask for Zenith 1-2000
Secret Service: U.S. Secret Service: Dial 688-4830

or in any emergency, dial the operator

9. You would dial 555-1155 to reach:

- A. the fire department
- B. the police
- C. an ambulance
- D. a doctor

10. Bonnie has the flu, and her father wants to take her to the doctor for a shot. What number should he call?

- A. 515-0734
- B. 555-1155
- C. 415-2115
- D. 555-1157

MATHEMATICS

1. What does the 3 in 37,089 stand for?

- A. 300,000
- B. 3,000
- C. 30,000
- D. 300

2.

$$\begin{array}{r} \frac{1}{12} \\ + \frac{5}{12} \\ \hline \end{array}$$

- A. $\frac{44}{12}$
- B. $\frac{1}{3}$
- C. $\frac{1}{2}$
- D. $\frac{7}{12}$

3. What is 18,763 divided by 39?

- A. 48 R 14
- B. 481 R 1
- C. 400 R 8
- D. 481 R 4

4.

$$\begin{array}{r} 5 \\ - 2.3 \\ \hline \end{array}$$

- A. 2.7
- B. 3.3
- C. 7.3
- D. None of the above

Use this information for the next two questions.

SIXTH GRADE CLASSES AT BLUE SCHOOL

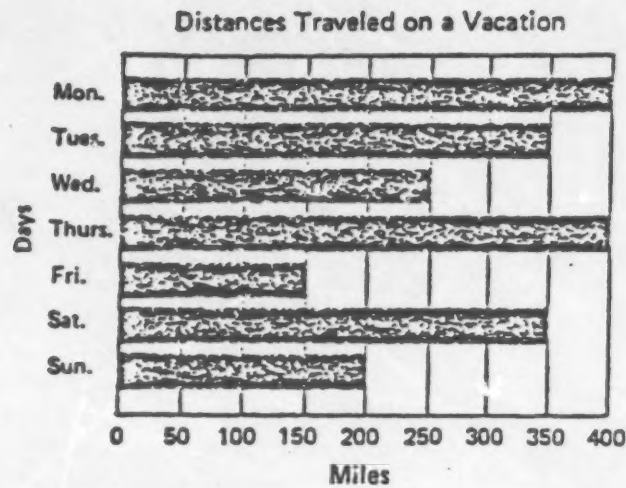
Mr. Tom's class has 26 students.
Mrs. Black's class has 27 students.
Mrs. Smith's class has 25 students.
Mr. George's class has 28 students.

5. How many sixth grade students are there at the Blue School?

- A. 53 students
- B. 105 students
- C. 106 students
- D. 107 students

6. Mr. Tom's class and Mrs. Black's class went on a field trip together. How many students went on the trip?

- A. 53 students
- B. 54 students
- C. 55 students
- D. 56 students



7. On what day did the family do the least driving?

- A. Wednesday
- B. Thursday
- C. Friday
- D. Saturday

8. Mr. Levi is an hourly employee who receives \$5 per hour. He receives time-and-a-half for any time over 8 hours on any given day. The following is his time card for last week.

Monday	Tuesday	Wednesday	Thursday	Friday
8 hours	8-1/2 hours	8 hours	9 hours	9 hours

How many hours overtime did he work last week?

- A. 1 hour
- B. 1-1/2 hours
- C. 2 hours
- D. 2-1/2 hours

9. Examine the check and stub. Then answer the question.

375 52.30 <u>Aug. 5, 1978</u> TO <u>Capgood</u> <u>Dress</u>		375 <u>1</u> 19 <u>1-9</u> <u>21</u>	
BAL FORD	180. 90	PAY TO THE ORDER OF <u>2</u>	\$ <u>5</u>
DEPOSITS	20. 00	<u>3</u>	DOLLARS
TOTAL	200. 90	Oakland Regional Office ACORN BANK 1300 Franklin Street, Oakland, CA 94590	
THIS CHECK	52. 30	<u>4</u>	
OTHER DEDUCTIONS		@: 1710C077C : C375 71547 0529	
BAL FORD	148. 60		

What should be written on line 2 ?

- A. Iku Nishi
- B. August 5
- C. Acorn Bank
- D. Capgood

WRITTEN EXPRESSION

1. Which word should begin with a capital letter?

John went to the California state fair on Thursday.

- A. went
- B. state
- C. fair
- D. none of the above

2. Which group of words should go in the blank to complete the sentence?

The basketball game _____

- A. at the high school.
- B. started at seven.
- C. going to end soon.
- D. on television now.

3. Choose the sentence that uses commas (,) correctly.

- A. We traveled through Los Angeles California.
- B. We traveled through, Los Angeles California.
- C. We traveled through Los Angeles, California.
- D. We traveled through Los, Angeles California.

4. Choose the correct word to complete the sentence.

The baby is sleeping, so please talk _____

- A. softness.
- B. softable.
- C. soften.
- D. softly.

5. Choose the sentence that is not about the same thing as the other sentences.

- A. Our class has homework tonight.
- B. Our class is planning a picnic.
- C. Each child will bring some food.
- D. We will eat at the park in town.

6. Look at the three underlined sentences below. Then choose the answer that puts all three sentences together in the best way. Do not change the meaning of the sentences or leave out any information.

Ann went to the game. Joe went to the game. Lee went to the game.

- A. Ann went to the game, and Joe and Lee went to the game.
 - B. Ann and Joe went to the game.
 - C. Ann, Joe, and Lee went to the game.
 - D. Ann and Joe and Lee went to the game.
7. Choose the correctly spelled word.
- A. apear
 - B. comittee
 - C. supose
 - D. possible
8. Choose the group of words that is a complete sentence.
- A. The library is open until 9 p.m.
 - B. Running around the park all day.
 - C. In the moonlight the old house.
 - D. Chased after the cat and the dog.

WRITING SAMPLE - A

YOUR SCHOOL COUNSELOR HAS ASKED YOU TO THINK ABOUT THE PERSON WHO HAS HAD THE MOST INFLUENCE ON YOUR LIFE. DESCRIBE THIS INFLUENCE, GIVING EXAMPLES OF HOW IT MAY HAVE CHANGED YOU.

WRITING SAMPLE - B

EMPLOYMENT AGENCIES CAN BE VERY HELPFUL IN FINDING YOU A JOB IF THEY KNOW WHAT JOB YOU WANT AND ARE QUALIFIED FOR. WRITE A LETTER TO THE EMPLOYMENT AGENCY SHOWN BELOW AND EXPLAIN WHAT JOB YOU WOULD LIKE AND WHAT YOUR QUALIFICATIONS ARE. EXPLAIN THE REASONS YOU THINK YOU SHOULD BE HIRED AND EXAMPLES OF YOUR STRENGTHS, INCLUDING REFERENCES IF ANY.

THE ABC EMPLOYMENT AGENCY
204 EAST BROADWAY
OAKLAND, CALIFORNIA 94606

DEAR SIR:

CORRECT ANSWERS

Reading Comprehension

- | | |
|------------------|--|
| 1. B. trapeze | 6. B. A soccer book |
| 2. C. fiddle | 7. D. includes tax, postage and handling |
| 3. B. grasp | 8. C. Sacramento |
| 4. B. Sacramento | 9. B. the police |
| 5. D. 7 hours | 10. A. 515-0734 |

Mathematics

- | | |
|---------------|-------------------|
| 1. C. 30,000 | 6. A. 53 |
| 2. C. $1/2$ | 7. C. Friday |
| 3. D. 481 R 4 | 8. D. 2-1/2 hours |
| 4. A. 2.7 | 9. D. Capgood |
| 5. C. 106 | |

Written Expression

- | | |
|--|---|
| 1. B. tate | 5. A. Our class has homework tonight. |
| 2. B. started at seven. | 6. C. Ann, Joe, and Lee went to the game. |
| 3. C. We traveled through Los Angeles, California. | 7. D. possible |
| 4. D. softly | 8. A. The library is open until 9 p.m. |